

REMARKS

An Office Action was mailed in the present case on February 21, 2006, rejecting Claims 1-6. Claims 7-11 had previously been withdrawn pursuant to a Restriction Requirement. Applicant hereby affirms the election to prosecute Claims 1-6. This Response is being submitted, along with a Petition For Extension of Time Within the First Month and the required extension fee. In this Response, Applicant has canceled Claims 7-11, without prejudice toward filing a divisional application. Applicant has also amended Claims 1 and 6 in view of the Examiner's remarks. The remaining claims have been canceled as being unnecessary to further define the invention.

Applicant's invention provides one solution to the problem of environmental degradation of the sealing gaskets used in plastic pipe systems, such as water and sewer pipes used in the municipal water works industries. The gaskets which are used as the sealing elements in such systems are subjected to attack by any of a number of environmental contaminants. These include, oil and hydrocarbons, sunlight, ozone, chemicals, etc. In order to ensure the sealing integrity of such systems, it is necessary to certify that the gaskets in question meet, for example, oil resistance standards as set out in ASTM C361.

In the prior art, the ASTM standard has generally been met by providing a sealing gasket formed of a material which is itself resistant to oil and other environmental contaminants. This provides a satisfactory solution to the problem, but has the disadvantage that the more exotic rubber formulations, such as nitrile rubber, are more expensive.

Applicant's invention addresses the problem of providing a sealing gasket which will meet the requisite ASTM standard for oil resistance by providing a specific type of coating for the gasket. Since the inner gasket body is no longer exposed to the environment, a less expensive rubber formulation can be used to form the body, for example SBR. Applicant's coating provides a gasket with oil, chemical and environmental similar to nitrile rubber at a fraction of the cost. An additional advantage of the coating is that it provides the option of easily color coding gaskets by type or application. Thus, a water line gasket would be a different color than a sewer line gasket, etc.

Applicant has amended the remaining independent Claim 1 to describe a method of installing a gasket in a socket end of a thermoplastic pipe which is used to form a pipe coupling, the method utilizing a gasket coating step "wherein the gasket coating is effective to provide oil resistance which is at least that of nitrile rubber at a fraction of the cost of a nitrile rubber gasket, thereby allowing a

less expensive material to be used in a product with characteristics equivalent to a more expensive material.” Support for the amended claim language can be found at page 3, lines 17-19 and page 11, lines 1-2 of the Specification as originally filed.

Applicant’s invention is the discovery that a particular class of coatings provides many of the above advantages without adding a undue cost burden on the gasket/pipe manufacturing process. Applicant has found that a class of synthetic coatings can be utilized in coating applications of the type under consideration. The preferred class of gasket coatings of the invention are nylon coatings. A particularly preferred commercially available nylon coating is sold under the brand name RILSAN®, available from Atofina Corporation of Paris, France. RILSAN® is the Atofina brandname for the polyamides 6, 11 and 12 family of nylon polymers.

In paragraphs 6-10 of the instant Office Action, the Examiner initially rejected Applicant’s Claims 1-6 under the judicially created doctrine of obviousness-type double patenting based upon various of Applicant’s own prior applications (10/776,842; 10/715,091), and patents (6,328,309; 6,676,886), primarily in view of the prior art reference to (Doolittle 3,827,660). Applicant is including with this response the required Statutory Disclaimers in order to remove the obviousness-type double patenting rejections and the required fees.

The Examiner also rejected Applicant’s Claims 1, 4 and 6 under 35 U.S.C. §102(b) based upon Corbett, Jr. (6,328,309). The ‘309 reference is cited to show a spray on anti-friction coating and the suggestion that the coatings being utilized could include nylon (Col. 3, lines 55-60 of Corbett, Jr.). Claims 2-3 and 5 were rejected under 35 U.S.C. §103(a) based upon Corbett Jr. ‘309 in view of Ulschmid et al. (5,361,567). The Ulschmid reference is cited for the proposition that nylon coatings can either be sprayed or dipped. Claims 1, 4 and 6 were rejected under 35 U.S.C. §103(a) based upon Corbett Jr. ‘886 in view of Corbett, Jr. ‘309. The ‘886 reference is cited to show the basic process of installing a gasket in the socket end of a thermoplastic pipe. The Corbett, Jr. ‘309 reference is combined to argue the teaching of a sprayed on nylon or Teflon coating. Finally, Claims 2-3 and 5 were initially rejected under 35 U.S.C. §103(a) based upon Corbett, Jr. ‘886 in view of Corbett, Jr. ‘309 and further in view of Ulschmid et al. ‘567. Corbett, Jr. ‘886 is cited for the basic pipe manufacturing process with Corbett, Jr. ‘309 being cited for spraying on a nylon coating and Ulschmid et al. being cited for the concept of spraying or dipping a nylon coating.

In view of the Examiner’s remarks, Applicant has amended independent Claim 1. In addition to more specifically describing the class of coatings and the method of application, Claim 1 now

includes language directed to the purpose and ultimate workings of the coatings of the invention. Specifically, Claim 1 now describes the gaskets of the invention as being “coated in a dip coating process” with an external coating, “wherein the coating is selected from the group consisting of Polyamide 6, Polyamide 11 and Polyamide 12 nylon coatings”. Further, the coating process is described as being “effective to provide oil resistance which is at least that of nitrile rubber at a fraction of the cost of a nitrile rubber gasket, thereby allowing a less expensive material to be used in a product with characteristics equivalent to a more expensive material.”

The amended claims are not anticipated by or rendered obvious by even a combination of the cited art for several reasons, as will be apparent in the discussion which follows.

There is more involved in Applicant’s invention than the mere discovery of a coating which will provide “environmental protection,” such as extended shelf life and Applicant should be given protection commensurate with the discovery. Not even a combination of the references suggest the key concept of Applicant’s presently claimed invention of utilizing a coating for a sealing gasket “wherein the gasket coating is effective to provide oil resistance which is at least that of nitrile rubber at a fraction of the cost of a nitrile rubber gasket, thereby allowing a less expensive material to be used in a product with characteristics equivalent to a more expensive material.” The Teflon coating used in the Corbett, Jr. reference was primarily concerned with providing an “anti-friction coating” which would reduce insertion force during pipe belling operations. No one envisioned utilizing a less expensive gasket body which would be given a special coating to meet ASTM oil resistance standards, thereby providing greater economy in manufacturing. Even a small cost saving is very significant in a commodity business such as the sealing gasket business of the type under consideration where literally millions of gaskets are manufactured and sold each year. Note that while the Col. 6, lines 53-57 of the ‘309 reference mentions that a Teflon coating will “improve the shelf life of a gasket” and provide increased oxidation resistance, oil resistance is not mentioned.

The Examiner cites the Corbett, Jr. ‘886 reference primarily to show the basic steps of a plastic pipe belling operation. However, the ‘886 reference does not teach the present coating technique which is the object of the present invention. The Examiner then combines the teaching of the Corbett, Jr. ‘309 reference to teach the use of Teflon or nylon coatings. However, the Corbett, Jr. ‘309 reference cited by the Examiner to suggest Applicant’s use of the presently claimed nylon coatings, was clearly directed toward the different purpose of reducing insertion force (Col. 3, lines 2-3) during pipe belling operations. Note also, Col. 2, line 33, a “spray-on antifriction coating” and Col. 3, line 54 of Corbett, Jr. ‘309 describing the use of “an anti-friction coating 10. The Corbett, Jr. ‘309 reference

does not anticipate Applicant's amended Claim 1 because the amended claim refers to specific nylon materials and because the amended claim calls for applying the coating by "dipping" as contrasted to the spray-on coatings taught as the preferred method of practicing the invention in the Corbett, Jr. '309 reference. Further, the combination of art suggested by the Examiner does not render Applicant's invention "obvious" as defined in the amended claim language.

Since Corbett, Jr. '309 was concerned with reducing insertion force, he would have likely been relegated on any practical basis to using the dry powder spray-on technique described in the preferred embodiment of that invention and coating only selected regions of the gasket exteriors. Dipping the entire gasket may have, in fact, increased the frictional resistances encountered during pipe belling where the hot and maleable pipe end is being forced over the belling mandrel and pre-mounted gasket. Even though the Ulschmid et al. '567 reference may teach that spraying and dipping are known means for applying coatings, there still must be some suggestion or reason for choosing to employ the presently claimed dipping process, as opposed to the preferred method of spraying taught in the issued Corbett, Jr. '309 reference. The suggestion isn't present in this case because the Corbett, Jr. '309 method was directed toward decreasing insertion force rather than to provide a more economical gasket design which would also meet ASTM oil resistance standards.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the Appellant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Appellant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). MPEP § 2142.

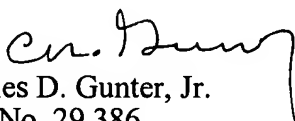
Applicant would respectfully submit that the Examiner has failed to provide a prima facie case of obviousness as defined above. Applicant has described a suitable gasket coating which will accomplish the stated objectives of the invention. Accordingly, Applicant should be allowed a claim of commensurate scope.

Reconsideration of Claims 1 and 6 is requested in view of the above arguments and amendments.

If any additional fees are seen to be due, the Commissioner is hereby authorized to charge such fees, or credit any overpayment to Deposit Account 50-2555 (Whitaker, Chalk et al.)

Respectfully submitted,

Date: June 21, 2016


Charles D. Gunter, Jr.
Reg. No. 29,386
Whitaker, Chalk, Swindle & Sawyer, LLP
301 Commerce St., Suite 3500
Fort Worth, Texas 76102
(817) 878-0504

ATTORNEY(S) FOR APPLICANT